DIKTRON DEVELOPMENTS LTD

INTRODUCTION TO THE DSX 1000 MKII AUTOMATIC DISTRESS SIGNAL UNIT

You will shortly be using the new MK II Diktron DSX Automatic Distress Signal Unit. As a B.A. user it would be useful to take note of a number of points regarding its use. You have used the Diktron DSU now for many years and although it has served you very well the new Diktron unit has been designed to give you far more. Therefore, there is a need to be aware of its many functions. For those moving to the use of the MK II from the DSX MK I there are many similarities in use but some additional features to note. You will be required to carry out your test procedure as for the DSU`s, to ensure that your unit is in good working condition on a daily basis as per your Brigades standing orders but some features incorporated in the new unit deserve special attention.

ON/OFF KEY

Firstly, the unit is electronic and is armed by a key situated in the bottom centre of the body, which is removed by depressing the serrated upper part of the key, and then withdrawing in a downward action. Having completed this operation the user will hear a coded tone (O.K.) Morse Code, this tone confirms that the electronics are working correctly. It is not necessary for you to learn Morse Code for you to verify that all is well, the sound which is of low intensity, 70-85 dBA will soon be recognisable to you, and generally it will either not operate, or, it will give a continuous sound which would indicate that all is not well with the unit. It is worth noting at this point that the activating key contains a magnet to operate the internal reed switch, it could therefore attract small metal objects. Damage to the key will be avoided if care is taken to remove any particles of metal before inserting the key. The key is very robust and likelihood of wear is remote.

LOCATION FLASHES

When the unit is turned on, the location lights will flash alternately on the front face and then on the two sides of the unit. This facility will enhance the visibility of B.A. Operators to each other as well as rescue and other staff.

AUTOMATIC MODE.

The unit incorporates an Automatic function that relies on movement or non-movement to operate. You will find in practise that the need for you to be conscious of this fact will be very rare, but it is worth noting that the unit is designed to be very sensitive in the upright position but still allows for heavy breathing, and less sensitive in the horizontal position to cover any movement occurring to the user whilst unconscious. If pre-alarm is experienced a slight movement of the body will cancel.

DURATION TIMER.

The provision of the optional Duration Timer does not mean that you no longer carry out your normal procedure, it should only be considered as an aid to your personal responsibility for your own well being. With the use of longer duration cylinders a possibility, the timer has been designed to continue beyond your present use. Whichever cylinder you use it will give you a “tap on the shoulder” at the following intervals. Upon removal of the key the unit starts to count. After fifteen minutes it emits 5 low intensity bleeps, look at your gauge, from this time on the unit will emit 5 bleeps every 5 minutes infinite. This function will of course be overridden by the distress mode and zeroed by replacing the on/off key.

EVACUATION WHISTLE

The optional evacuation whistle feature simulates the sound of the Acme Thunderer whistle, and has a sequence of three blasts every 20 seconds. It should be used in strict accordance with your brigade’s application of operational procedures as each brigade may have its own guidelines for its use. For instances where in deep penetration the whistle sound (initiated on the outside of the incident) may not be heard by all B.A. operators or where the evacuation instruction is given verbally to the member of the B.A. team with a radio, then the instruction to evacuate can be “relayed” or “past on” to other B.A. operators by the pressing of the evacuation button on the side of the unit. When the button is pressed a short tone will highlight the delayed action on the button after which the Whistle blast sequence will commence.

MANUAL ALARM

The manual alarm button is located at the top of the unit when pressed the unit emits the full alarm sound JCDD 38 and will continue to sound until key is replaced.

LOW BATTERY WARNING LIGHT

Depending upon your Brigades use of batteries the need to change will occur on a 12 monthly or 6 monthly basis. However, this may be necessary before, depending upon usage and shelf age of the battery used, therefore you will be required to note if the red light and an audible warning occurs, this indicates the need to change the battery. The low level of the battery can only be monitored whilst under load, namely in use. There is a possibility that the warning may occur whilst in an incident. The unit will continue to operate for more than one hour in full alarm after this point is reached, but you may find that having replaced the key for a few minutes the unit no longer shows the warning light when activated again. This is because the battery has recovered to above its normal monitoring level, however the initial warning should not be ignored and the changing of the battery should be implemented.

CHANGING THE BATTERY.

If you are required to change the battery at any time, the following points should be noted.
Never change the battery with the activating key removed. Always change the battery in a safe area. Only use batteries listed on the back of the unit. The use of batteries other than those listed would invalidate the Intrinsic Safety Certificate and present a potential danger. To underline this an explanation of the temperature class of an intrinsically safe piece of equipment is necessary. The surface temperature of a battery in short circuit condition determines its use in the “T” class of any piece of equipment. It is therefore important to only use batteries that BASEEFA have listed. Remove the 4 battery lid screws and ease off the battery lid. Inspect the rubber seal (Part No. 4077), on the battery cover screws (Part No 4121), replace if necessary. Inspect the battery cover seal (Part No. 4120) around the battery compartment, replace if necessary.
Inspect the seal face of the Battery Cover (Part No. 4119) and replace if necessary. Inspect the battery connector. Fit a new battery, taking care to have the ON/OFF key in place. Refit the battery lid using a 2.5mm Allen Key, take care not to over tighten the M3 x 8 stainless steel screw. Remove the activating key and check the operation of the unit. Other than cleaning the unit with soap and water, when required, your unit will need little maintenance, but if you feel that more information is required then Diktron will be glad to assist you via your B.A. Officer.

IMPORTANT NOTICE: Under no circumstances should thread locking fluids be used to retain screws. For further information contact Diktron Developments Limited.

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